# DATA SCIENCE GRADUATE CERTIFICATE

**Banner Code: SC-CERG-DSCI** 

**Academic Programs Administrator** 

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Website: science.gmu.edu/academics/departments-units/computational-

data-sciences/data-science-graduate-certificate

This certificate program focuses on mastering a variety of basic computational skills to manage and analyze data. The certificate is designed primarily for professionals in technical fields who seek to upgrade their expertise in data science. This program is also available as an option for prospective or currently enrolled master's degree students.

The coursework in this program provides an accelerated introduction to concepts in the modern analysis of data. Topics include computer packages, graphics, databases, data analytics, and their applications.

This certificate may be pursued on a part-time basis or full-time basis.

#### **Admissions & Policies**

### **Admissions**

Applicants to all graduate programs at George Mason University must meet the admission standards and application requirements for graduate study as specified in the Graduate Admission Policies (http://catalog.gmu.edu/admissions/graduate-policies/) section of this catalog. Applicants to this certificate should have an academic background in science, engineering, mathematics, or computer science. They should have an undergraduate degree from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent with a GPA of at least 3.00 in their last 60 credits of study. In addition, applicants should have facility in using a high-level computer programming language.

To apply, prospective students should complete the George Mason University Admissions Application (https://www2.gmu.edu/admissions-aid/apply-now/), supply two copies of official transcripts from each college and graduate institution attended, and a current résumé. TOEFL scores are required for all international applicants.

#### **Policies**

For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

## Requirements

# **Certificate Requirements**

Total credits: 15

This certificate may be pursued on a full-or part-time basis.

Students should refer to the Admissions & Policies tab for specific policies related to this program.

#### **Tools Courses**

Code	Title	Credits
CSI 500	Computational Science Tools	3
CSI 501	Introduction to Scientific Programming	3
CDS 501	Scientific Information and Data Visualization	3
CDS 502	Introduction to Scientific Data and Databases	3
Total Credits		12

## **Applications Courses**

The applications courses provide content from a specific scientific domain and demonstrate the utilization of techniques within its context.

Code	Title	Credits
Select one from the following:		3
CSI 695	Scientific Databases	
CSI 777	Principles of Knowledge Mining	
CSS 692	Social Network Analysis	
Total Credits		3